

# Success or Failure: The NRAS

Xin Janet Ge<sup>1</sup>, Connie Susilawati<sup>2</sup>

## Abstract

Many Australian families are unable to access homeownership. This is because house prices are very high to the severely or seriously unaffordable level. Therefore, many low income families will need to rely on affordable rental housing supply. The Australian governments introduced National Rental Affordability Scheme (NRAS) in July 2008. The scheme aims to increase the supply of affordable rental housing by 50,000 dwellings across Australia by June 2014. It provides financial incentive for investors to purchase new affordable housing that must be rented at a minimum of 20% below the market rent. The scheme has been in place for four years to June 2012. There are debates on the success or failure of the scheme. One argues that the scheme is more successful in Queensland but it failed to meet its aims in NSW. This paper examines NRAS incentive designed to encourage affordable housing supply in Australia and demonstrates reasons for developing properties that are crowded in areas where the land prices are relatively lower in the NSW using a discounted cash flow analysis in a hypothetical case study. The findings suggest that the high land values and the increasing cost of development were the main constraints of implementing the scheme in the NSW and government should not provide a flat rate subsidy which is inadequate to ensure that affordable housing projects in high cost areas.

**Keywords:** Affordability, NRAS, Housing, Australia

## 1. Introduction

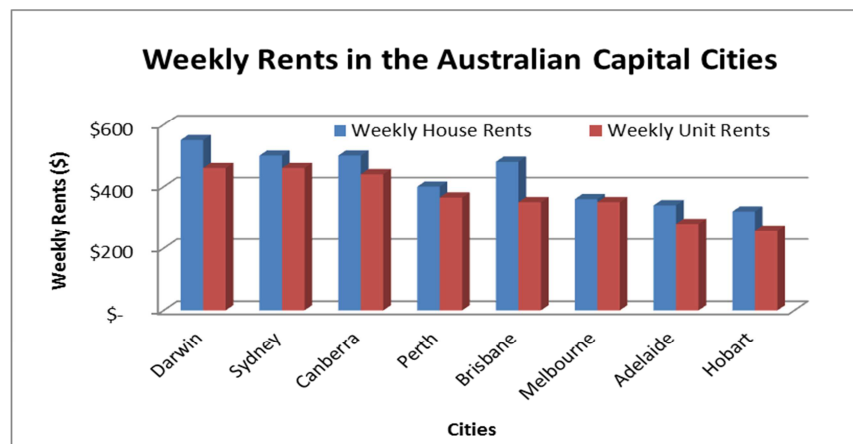
Many families in Australia aspire to have their own home but with house prices increasing and staying high, it is proving very difficult for the low- and moderate-income families to reach the goal of home ownership. These families have limited options but are forced into the rental market. However, the rental prices are ever increasing and have reach a point where they are very high to the severely unaffordable levels. The vacancy rates have fallen in all Australian capital cities to below the bench market level of 3 per cent (Schlesinger, 2012). Figure 1 shows the average weekly rents of the capital cities in Australia in January 2012. According to a report by the Australian Property Monitors, Darwin was the most expensive city with median rentals of \$505 a week each, compared with the national average of \$411 a week in January 2012 (Koremans, 2012). In Sydney, the average weekly rent for houses and units are \$500 and \$460 respectively. In Brisbane, the average weekly rent for houses and units are \$480 and \$350 respectively. The median personal income in

---

<sup>1</sup> School of the Built Environment, University of Technology Sydney

<sup>2</sup> School of Civil Engineering and Built Environment, Queensland University of technology

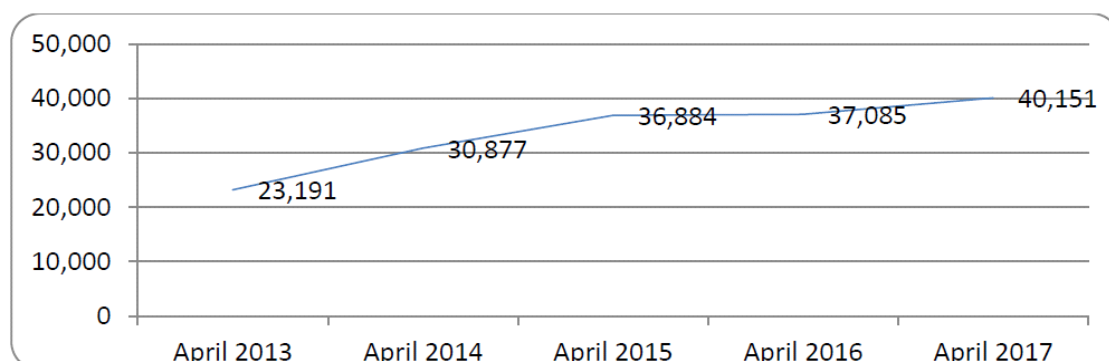
the 2011 census was \$577 a week and median household income was \$1,234 per week (ABS, 2012). This implies that around 40 per cent of a household's income go to their accommodation each week, which is termed 'housing stress', i.e., housing costs are more than 30 per cent of a household's gross income defined by the Australian Government (National Housing Strategy, 1991). Due to the limited stock of public housing, many low income households will need to rely on affordable rental housing supply provided by the private rental market.



**Figure 1: Weekly Rents in the Capital Cities of Australia (Koremans, 2012)**

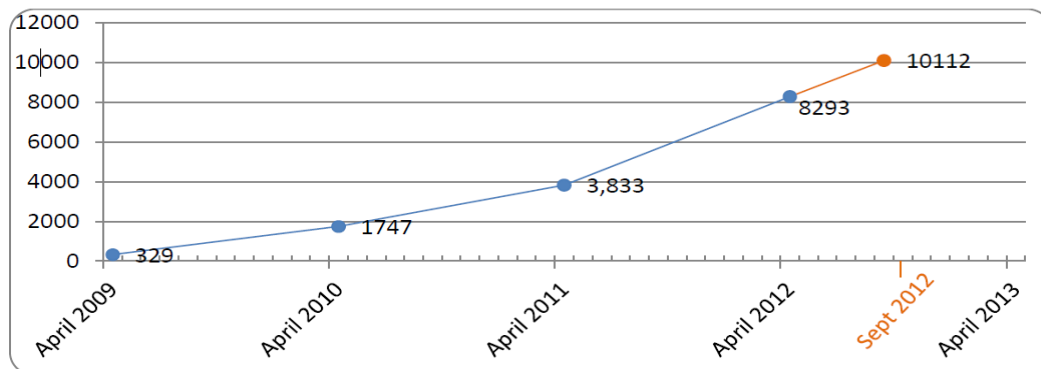
This study uses the term affordable rental housing in the private sector as the housing which is rented below market rent. However, the investors of the affordable rental housing will receive a lower rental income than market rate. In order to attract investors into this sector, government incentives are crucial in providing tax incentives for them. The Australian government introduced the National Rental Affordability Scheme (NRAS) in July 2008 to increase the supply of affordable rental housing.

The NRAS provides financial incentive for investors to purchase new affordable housing that must be rented at a minimum of 20 per cent below the market rent for 10 years (FAHCSIA, 2011). The Secretary of the Department of Families, Housing, Community Services and Indigenous affairs (FaHCSIA) is responsible for the management of NRAS, in consultation with the Australian Taxation Office (ATO). The assessment of applications is undertaken jointly between the Australian Federal, State and Territory Governments (FaHCSIA, 2011). The scheme has been implemented through four funding rounds totaling up to 40,151 incentives allocated among a total 138 participants to September 2012 (Figure 2).



**Figure 2: Cumulative participant reported delivery (Australian Government, 2012)**

The actual delivery and realization of these incentives was only 10,112 to the end of September 2012 (Figure 3).



**Figure 3: Cumulative Actual delivery of incentives (Australian Government, 2012)**

There are debates on the success or failure of the scheme. One argues that the scheme is successful in the Queensland (QLD) but it failed in the New South Wales (NSW). According to Table 1, there were 16.8 per cent (6,729 incentives) allocated to NSW and 28.1 per cent (11,281 incentives) to QLD of total incentive scheme (Australian Government, 2012). The QLD allocated 67 per cent more incentives than NSW. This paper investigates the reasons why many investors are attracted to invest in QLD rather than in NSW through the NRAS scheme. The research is important since it tests the factors that influence the implementing the NRAS scheme. The findings can be used as a reference for government when the incentive scheme is revised.

**Table 1: Incentive Status by State/Territory**

State	Incentives Allocated	National %	Incentives Reserved	National %	Total Incentives	National %
ACT	1,299	12.80%	1,396	4.60%	2,695	6.70%
NSW	1,462	14.50%	5,267	17.50%	<b>6,729</b>	<b>16.80%</b>
NT	105	1.00%	1,591	5.30%	1,696	4.20%
QLD	3,128	30.90%	8,153	27.10%	<b>11,281</b>	<b>28.10%</b>
SA	1,298	12.80%	2,493	8.30%	3,791	9.40%
TAS	477	4.70%	986	3.30%	1,463	3.60%
VIC	1,619	16.00%	5,203	17.30%	6,822	17.00%
WA	724	7.20%	4,950	16.50%	5,674	14.10%
Total	10,112		30,039		40,151	

**(Australian Government, 2012)**

The paper will begin with an introduction of the NRAS program, followed by comparison of how the NRAS were implemented in both Queensland and NSW. The main factor that influence the program implementation will be identified and analysed through a case study using DCF modelling and sensitivity analysis next and followed by a conclusion of the scheme's success or failure.

## 2. The National Rental Affordability Scheme

### 2.1 The structure of the scheme

The NRAS was enacted by the *National Rental Affordability Scheme Act 2008*, the *National Rental Affordability Scheme (Consequential Amendments) Act 2008*, and the *National Rental Affordability Scheme Regulations 2008* (FaHCSIA, 2011). The objectives of the scheme are to *a) stimulate the supply of up to 50,000 new affordable rental dwellings; b) reduce rental costs for low and moderate income households by making these dwellings available for rent at a rate that is at least 20 per cent below the prevailing market rate; and c) encourage large-scale investment and innovative delivery of affordable housing* (FaHCSIA, 2011). Establishment Phase (01 July 2008 – 30 June 2010) and Expansion Phase (01 July 2010 – 30 June 2014) were the two phases implemented by the Scheme.

Financial institutions, property developers and non-for-profit organisations are encouraged to apply for the incentives. Individual investors can be involved in the scheme through joint venture, purchasing NRAS dwellings from an Approved Participant, a superannuation fund or property trust (FaHCSIA, 2011). The tax incentive is provided by federal government as a refundable tax offset through the lodgment of investor's income tax return. The amount of credit is \$6,000 dollars per dwelling (in 2008/09) indexed in accordance with the rental component of the Consumer Price Index for ten years, subject to annual compliance of the rules of the scheme (Gilmour and Milligan, 2008). An annual cash payment is allocated for the non-for-profit organisations participating in the scheme that are registered charities with the Australian Tax Office (FaHCSIA, 2011). The State and Territory Governments have roles to provide in-kind incentives to the Approved Participants by ways of contributing land (gratis or discounted), reducing rates and fees, contributing infrastructure, or others. In addition, State and Territory Governments may provide their contributions to the NRAS scheme for future years in advance, and the Contributions may not be deferred (FaHCSIA, 2011).

Approved Participants must meet the mandatory conditions in order to receive the NRAS incentives. The mandatory conditions include dwellings will be rented to 'eligible tenants' for at least 20 per cent below the prevailing market rate. The eligible tenants of the NRAS are those in low- to moderate- income households. Household income and the number of people including children are taken into consideration for their eligibility. There is no asset test in determining tenants' eligibility, except for tenants in Queensland. The dwellings must not be vacant for more than 13 weeks cumulatively or continuously and a statement of compliance for each approved rental dwelling must be lodged at the end of the NRAS year. The Secretary will issue a tax offset certificate to the Approved Participants, who are entitled to claim the NRAS incentive as a refundable tax offset under the NRAS. The Approved Participants must make sure the approved rental dwelling has complied with eligibility and reporting requirements of the Scheme for the NRAS year in order to receive a tax offset certificate (FaHCSIA, 2011).

The investors of the NRAS have no obligation to remain in the scheme. They may terminate from the scheme at any time during the 10-year period without penalty and merely foregoes the future benefits for the remaining balance of the 10-year term. The title of the NRAS

property remains with the investors and the government has no legal or equitable claim over the property (McAuliffe, 2011).

## 2.2 The NSW and the QLD

As explained in the previous section, the tenant eligibility requirements are the same for NSW and QLD. However, the housing costs (weekly rent) in NSW are higher than that in QLD. This conditions compounded by the increasing housing needs in NSW have forced the housing developments to the lower land cost areas and smaller size of dwellings. The sizes of dwellings approved in NSW and QLD under NRAS as at 30 April 2012 are listed in the Table 2. In QLD, larger dwellings dominate the approved NRAS incentives (3 and 4 bedrooms is 55%). On the other hand, 47% of NSW NRAS stock consists of 2 bedrooms and 42% of studio and 1 bedroom dwellings.

**Table 2: Size of Dwellings approved as at 30 April 2012**

State	Studio	1 Bedroom	2 Bedrooms	3 Bedrooms	4 Bedrooms	Total Dwellings
NSW	1,143	1,726	3,163	624	116	6,772
	17%	25%	47%	9%	2%	100%
QLD	290	1,827	3,060	4,364	1,743	11,284
	3%	16%	27%	39%	15%	100%

**(AMC, 2012)**

The State and Territory governments are responsible in providing in-kind incentives to the NRAS program. According to the NSW government (2010), two forms of incentives are provided. The *NSW NRAS A* program is for not-for-profit registered community housing provides. There are \$40 million is available for the State contributing upfront capital to the approved projects. The NSW government announced that it will limit the number of incentives available to for-profit applicants to 1,250 dwellings (NSW government, 2010), undermining the federal government's more ambitious targets.

The *NSW NRAS B* is for all eligible organisations and \$2,285 per year per unit, in addition to the Commonwealth Government incentive of \$6,855, is contributed by the State for 10 years (NSW Government, 2010). The applicants must not only meet the mandatory conditions set by the federal government, but also demonstrate to meet the State/Territory priority needs.

In Queensland, the annual income-tax free incentive is currently \$9,981 per dwelling and is indexed annually to the rental component of the CPI for 10 years. The incentive comprises a) the Australian Government contribution of \$7,486 per year for 10 years as a refundable tax offset or payment, and b) the Queensland Government contribution of \$2,495 per dwelling per year for 10 years as a cash payment for dwellings in Queensland (Queensland government, 2012a).

A one-off lump sum payment, e.g. a lottery and income earned from e.g. dividends or interest are considered as income (FaHCSIA, 2011). There is no asset test in determining tenant eligibility except for tenants in Queensland. Table 3 shows the difference in the

selection of eligible tenants for the NRAS program in NSW and QLD. It clearly shows that the QLD government is closely involved in monitoring and implementing the NRAS scheme.

**Table 3: Selecting Eligible Tenants**

	NSW	QLD
Tenant Selection	Approved Participants are responsible to select eligible tenants	Queensland Department of Housing and Public Works (Housing Services)
Citizenship	No requirement	Citizen, Permanent Residence, Temporary or Bridging visa
Waiting lists	Tenancy management organisation keeps the waiting lists	Queensland One Social Housing Register
Decision Justification	Approved Participants are not required to justify their tenant selection decisions	Approved Participants are able to download lists of potential tenants

**(NSW Government, 2012; Queensland Government, 2012b)**

### 3. Analysis of the Costs and Benefits of the NRAS to Investors

Australian dwellings are considered as severely unaffordable according to the survey conducted by the 8<sup>th</sup> *International Housing Affordability Survey* (Bruegmann, 2012). The survey uses the ‘median multiple’, i.e. the median house price compared to median household income, to measure the housing affordability. The score under ‘3’ is considered affordable. Given the measurement, the Australia national median is 5.6, this falls in the severely unaffordable category (Refer to Table 4).

**Table 4: Median Multiple Survey 2012**

Rank	Major Metro Market	Median Multiple
1	Sydney	9.2
2	Melbourne	8.4
3	Coff's Harbor	8.3
4	Gold Coast	7.6
5	Sunshine Coast	7.5

**(Source: Bruegmann, 2012)**

In particular, the multiple for Sydney is 9.2 and Melbourne is 8.4, among the highest in the world. This is because both cities are highly desired by most of people that creates pressure to house prices when house supply is inelastic. Table 5 presents the some of the survey data that shows demographic census results in 2011. The greater Sydney area is double the size of the greater Brisbane in term of the population, families and private dwellings. This indicates the demand for housing in NSW is higher than in QLD. The median weekly household income and weekly rent in the Sydney are relatively higher than the Brisbane. The information also implies that 35 per cent of median monthly income has been used for mortgage repayments in the Sydney while 32 per cent in Brisbane.

The supply of rental dwellings in the QLD performs better than that in NSW. The rate of rental stress in NSW was 47.6% and in QLD was 42.5%; both states are above the national average 41.7% in 2009-2010 (COAG Reform Council, 2012). According to the Shelter NSW

(2012), 40.8% of households or 155,357 households were in rental stress in 2011. There was a shortage of dwellings for rental in the private market for households with very low to moderate incomes in NSW. Only 10 per cent of rental stock was affordable for very low income households; 27 per cent was affordable for low-income households and 63 per cent was affordable for moderate-income households. The vacancy rate for all types of residential properties was around 1.7 per cent on September 2012 in Sydney, the lowest nationally (SQM Research, 2012). Comparing the same period with Brisbane, the vacancy rate was 1.5 per cent and 3 per cent in the Gold Coast. It is claimed that 184,031 households are at risk of financial hardship and poverty in Queensland (Queensland Shelter, 2012). Building more affordable housing in high needs locations to provide lower priced housing for key tenant groups are one of the objectives for the QLD government. The Queensland Government has important roles to allocate the NRAS project and direct the incentives to the area that most needed. However, Lawson, et al. (2009) pointed out that the flat rate subsidy is inadequate to ensure that affordable housing projects in high cost areas.

**Table 5: Australian 2011 Census information for the Greater Sydney and Brisbane**

	Greater Sydney	Greater Brisbane
People	4,391,674	2,065,996
Families	1,152,548	548,496
Average people per household	2.7	2.7
Median weekly household income	\$1,447	\$1,388
Median monthly mortgage repayments	\$2,167	\$1,950
Median weekly rent	\$351	\$325

**(ABS, 2012)**

The point was supported by the BVSC (2010) that most new properties have been built in middle and outer suburbs and in larger regional towns where land prices are lower due to limited funding through the scheme. These properties are crowded and developed in areas where the land cost are relatively lower in the NSW since low yield, high costs and risks (Berry, 2000) are claimed as being the main factors for the situation. As a result, the NRAS projects are a mismatch and might not be located in the area most needed affordable housing. To test whether developers are affected by the land costs for housing development and what benefits are there for the investors to invest in the affordable dwellings under the NRAS schemes, a discounted cash flow model is applied to test the effects of the policy based on the a hypothetical project. Profit maximization, i.e., minimising costs and maximising returns, is assumed as the aim for both developers and investors. Thus Net Present Value (NPV) and Internal Rate of Return (IRR) are used for measuring the benefits of the developments and investments. The calculation of NPV is denoted as follows:

$$NPV = \sum_{t=1}^n \frac{C_t}{(1+k)^t} - C_0$$

$C_t$ = net cash flow generated by the project at time  $t$

$C_0$ = initial cash outlay

$n$  = the life of the project

$k$  = cost of capital

Development and investment decisions can be made when NPV is positive and IRR is greater than the required rate of return. The estimating procedure involves

- a) investigating the costs and revenues of developments and investments that include the costs of land, selling prices, rental income, etc.
- b) the government incentives for the development and investment.
- c) building cash flow models and calculating NPV and IRR for developers and investors.
- d) conducting sensitivity analysis and discussing the results

The hypothetical NRAS project is located 23 kilometres west of the Sydney central business district on the bank of Parramatta river Parramatta (postcode: 2150). The Parramatta has a population of 19,745 with the average age of 30, comparing to a national average of 37 according to the 2011 Census. The majority of dwellings in Parramatta were apartments (72%), compared to a national average of 14%, and 58% of all dwellings were rented compared to a national average of 27%. The median sale price is \$379,400 and the median rent in Parramatta was \$400 per week (indicates a rental yield of 5.5 per cent for 9 months Feb-Oct 2012) for all type of properties (Suburb View, 2012). The median weekly household income is \$1,288 and median monthly mortgage repayments are \$2,063 (ABS, 2012).

There were 175 NRAS dwellings allocated in the suburb of Parramatta includes North Parramatta. It is assumed that the average cost of \$1,500 per square meter for land cost and an average of \$2,000 per square meter for constructing the 175 dwellings in the area. Fifty per cent of the units can be sold off-the-plan prior to the commencement of construction. The completed units will be purchased by the investors and rented to the low- and moderate-income families for 10 years then the units will be sold at the end of 10-year term.

Other general assumptions include average interest rates and inflation rates (CPI) are assumed 7 per cent and 3 per cent respectively. Interest only loan is used. The investment properties are managed by a professional team who will ensure the eligibility of the NRAS tenants, process the tax credits and compliances. The fee charged is assumed to be \$1,750 per year per dwelling including all management fees. Other fees such as strata and council rates are assumed to be \$4,000 and insurance and maintenance costs are assumed to be \$1,000 per unit. Market growth rate of 4 per cent is applied for the final sale. All expenses are adjusted by the CPI. No vacancy rate is assumed since there is a long waiting list of eligible tenants.

Assumptions also include

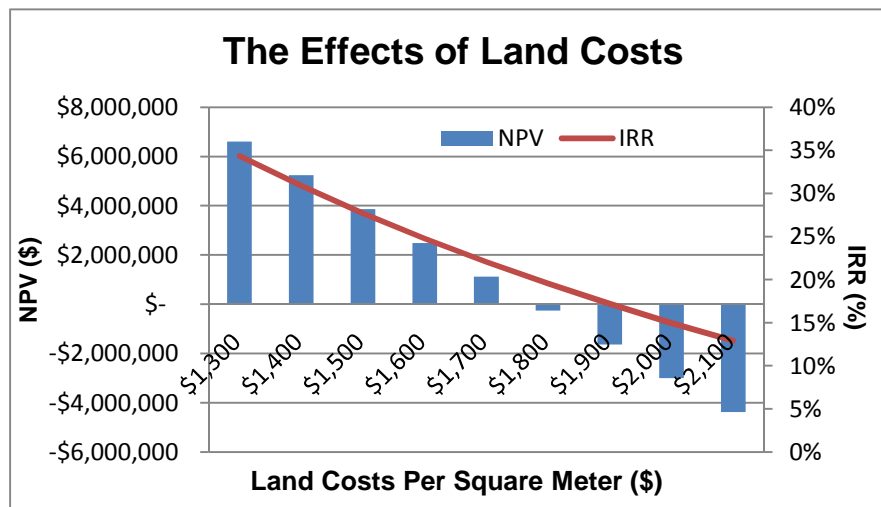
- Both the Federal and State government will contribute \$9,981 tax free to the investor in 2012.
- The tax free contribution is indexed for the 10 year term of the agreement at CPI.
- Brand new properties are rented at 20 per cent lower than the market rent.

### ***The Results***

A discounted cash flow model is built and results of the modelling are in favour for both developers and investors given the assumptions. According to the sensitivity analysis, it shows that land cost is one of the crucial elements affecting development decisions. The higher the land cost, the lower the development profits. Figure 4 depicts land cost and development profits are inversed. When the land cost per square meter increases the NPV

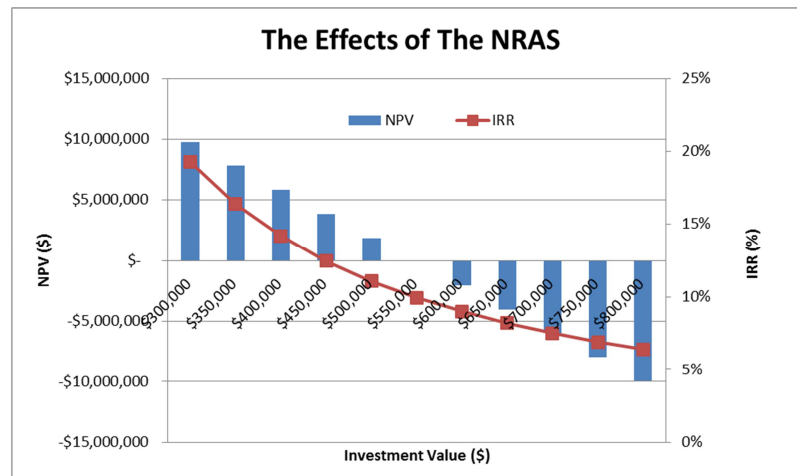


and IRR decreases. The IRR decreases from 31% to 28% when the cost of land increases from \$1,400 to \$1,500 per square meter.



**Figure 4: The effects of land costs to development returns**

Similarly, Figure 5 shows a negative relationship between investment values and returns under the NRAS scheme. The higher the value of investment, the less the return will be. When the investment value reaches \$550,000 at the given assumptions, the investment will barely breakeven or a loss will be realised.



**Figure 5: The effects of investing the NRAS affordable housing**

The hypothetical case study explains the reasons why some of the high priority areas identified by the NSW government such as Sydney, North Sydney, Willoughby etc. where there is less affordable housing developments and low investment participations due to the high price of land and investment costs in these areas. The findings also explain why QLD has attracted more investors participating in the NRAS scheme because of less expensive cost of land comparing to NSW. Investors are attracted to the less expensive projects which are normally located a long distance from the central business district. This can create a number of problems. The first problem is that the low- and moderate-income households

may have difficulty to access employment; Secondly, the higher transportation costs could offset the lower rental costs subsidised by the governments; Third, social issues can be created when numerous low- and moderate-income families are all crowded together in suburbs competing for limited available public resources and facilities.

The criticisms to the NRAS also include insufficient funds to build new properties for the current provided scheme and thus other contributions such as land donations, bank loans and use of the planning system are needed (BVSC, 2010). Institutional investors are not encouraged to participate with the scheme as low return and high risks under the current economic climate (Gilmour and Milligan, 2008). This is because the NRAS was introduced at a difficult time during the Global Financial Crisis (GFC). Many investors were overexposed to the property asset class as a result of the decline in list equity markets (Thornley, et al., 2011). The Australian bank deposits were guaranteed by the Australian government and the banking system was much more resilient, nevertheless, banks have tightened up their credit and lending policies to against the unforeseen risks. As a result, it was relatively difficult for institution and individual investors to access debts from the banks. On the other hand, many institutional investors reduced their risk exposures by adjusting their balance sheet to lower the level of debts to around 30 per cent.

In addition, the NRAS scheme was criticised that the supply of affordable rental housing is not sustainable because that a) the use of the dwellings produced after the expiry of the 10-year tax credit period are not restricted (Lawson, et al, 2009); b) no regulations apply for dwellings may be sold after the tax incentive period (Milligan and Pinnegar, 2010). The federal and states are both directly administering housing programs and having overlapping monitoring and regulatory processes (Plibersek, 2009). If the State and Territory governments do not perform or they disengage over time to match for all available incentives is of concern (Milligan and Pinnegar, 2010). There is also a risk that the federal government abandons or withdraws from their administrative roles and leaves the states to manage it alone. Evidences suggest that the NRAS scheme should set as long-term policy and provide tax credit formula in accordance with elements such as area priority, land value and costs of developments.

## **4. Conclusion**

The NRAS scheme plays an important role in the supply affordable rental housing for the low- and moderate-income households. The NRAS scheme is successful in term that the scheme has offered a strong incentive for small scale investors to increase the affordable rental stocks. The scheme has performed better in QLD since the land cost and property values are relatively lower than that in NSW. The high land values and the increasing cost of development were the main constraints of implementing the scheme in the NSW. There are not enough incentives to attract Institutional investors to participate in the scheme. Most of the NRAS incentives were allocated to the areas located at long distance from CBD since the costs of these investments are relatively lower that can ensure positive returns on investments. The findings suggest that a) the relative more incentive should be provided to ensure that affordable housing projects in high cost areas; b) The government incentives provided in the scheme should work in partnership with other policies to ensure sufficient

funding security; and c) stable economic conditions and long-term policies can ensure the NRAS scheme run successfully. To develop analytical matrix to study the effectiveness and efficiency of the NRAS scheme and its implementations are considered for further research.

## References

ABS (2012) 2011 *Census QuickStats*. (available online <http://www.abs.gov.au/websitedbs/censushome.nsf/home/quickstats?opendocument&navpos=220> [accessed on 8/8/2012]).

AMC (2012) *Newsletter May 2012 – issue 11*. (available online [http://www.hmw.com.au/amc/newsletters/news\\_archives/amc\\_\\_\\_may\\_2012\\_newsletter](http://www.hmw.com.au/amc/newsletters/news_archives/amc___may_2012_newsletter) [accessed on 8/11/2012]).

Australian Government (2012) *National Rental Affordability Scheme Monthly Performance Report 30 September 2012*. (available online [http://www.fahcsia.gov.au/sites/default/files/documents/11\\_2012/nras\\_performance\\_report\\_sept\\_2012.pdf](http://www.fahcsia.gov.au/sites/default/files/documents/11_2012/nras_performance_report_sept_2012.pdf) [accessed on 7/11/12]).

Berry, M. (2000) “Investment in rental housing in Australia: small landlords and institutional investors”, *Housing Studies*, 15 (5): 661-681.

Bruegmann, R. (2012) *8<sup>th</sup> Annual Demographia International Housing Affordability Survey: 2012*. (available online <http://www.demographia.com/dhi.pdf> [accessed on 11/9/12]).

BVSC (2010) *Affordable housing strategy, Bega Valley Shire Council*. (available online [www.begavalley.new.gov.au](http://www.begavalley.new.gov.au) [accessed on 7/11/12]).

COAG Reform Council (2012) *Affordable Housing 2010–11: Comparing performance across Australia*, National Affordable Housing Agreement. Report to the Council of Australian Government. Sydney: COAG Reform Council.

FaHCSIA (2011) *National rental affordability scheme policy guidelines*, Department of Families, Housing, Community Services and Indigenous Affairs. (available online [http://www.fahcsia.gov.au/sites/default/files/files/housing-support/NRAS\\_policy%20guidelines\\_fahcsia.pdf](http://www.fahcsia.gov.au/sites/default/files/files/housing-support/NRAS_policy%20guidelines_fahcsia.pdf) [accessed on 11/9/1]).

Gilmour, T. and Milligan, V. (2008), “Stimulating Institutional investment in affordable housing in Australia: insights from the US”, *3rd Australasian Housing Researchers’ Conference*, Melbourne, June 18th-20th.

Koremans, S. (2012) *Rental squeeze hits in Australian capital cities*, (available online: <http://www.news.com.au/money/property/rental-squeeze-hits-in-australian-capital-cities/story-e6frfmd0-1226249371833>, [accessed on 10/10/12]).

Lawson, J. Berry, M. Milligan, V. and Yates, J. (2009) “Facilitating Investment in Affordable Housing - Towards an Australian Model”, *Housing Finance International*, 24(1): 18-26.

McAuliffe, B. (2011) “Implications of the National Rental Affordability Scheme on the Valuation of Residential Property”, at *17<sup>th</sup> Pacific Rim Real Estate Society Conference*, 16 to 19 January 2011, Gold Coast, Australia.

Milligan, V. and Pinnegar, S. (2010) "The comeback of national housing policy in Australia: first reflections", *International Journal of Housing Policy*, Vol. 10, No. 3, pp. 325-344.

National Housing Strategy (1991) *The affordability of Australian housing*. Canberra: Australian Govt. Pub. Service.

NSW Government (2012) *Renting Affordable Housing*, (available online: <http://www.housing.nsw.gov.au/NR/rdonlyres/9D3F9D59-3640-47B2-A5A7-5228911773FA/0/RentingAffordableHousing.pdf> [accessed on 5/11/12]).

NSW Government (2010) *National rental affordability scheme, NSW program requirements round 4*, Family & Community Services Housing NSW.

Plibersek, T. (2009) *Room for more: boosting providers of social housing*, Speech by the Minister for Housing to the Sydney Institute on March 19 2009 at Sydney.

Queensland Government (2012a) *National Rental Affordability Scheme Queensland – Investors*. (available online <http://www.communities.qld.gov.au/housing/housing-services/renting-in-the-private-market/national-rental-affordability-scheme/information-for-investors> [accessed on 7/11/12]).

Queensland Government (2012b) *National Rental Affordability Scheme-Information for prospective tenants in Queensland*, (available online <http://www.communities.qld.gov.au/resources/housing/renting/nras-prospective-tenants.pdf> [accessed on 7/11/12]).

Queensland Shelter (2012) *Media kit – Queensland State Election 2012*, (Available online <http://www.qshelter.asn.au/files/QShelter%20media.pdf> [accessed on 10/10/12]).

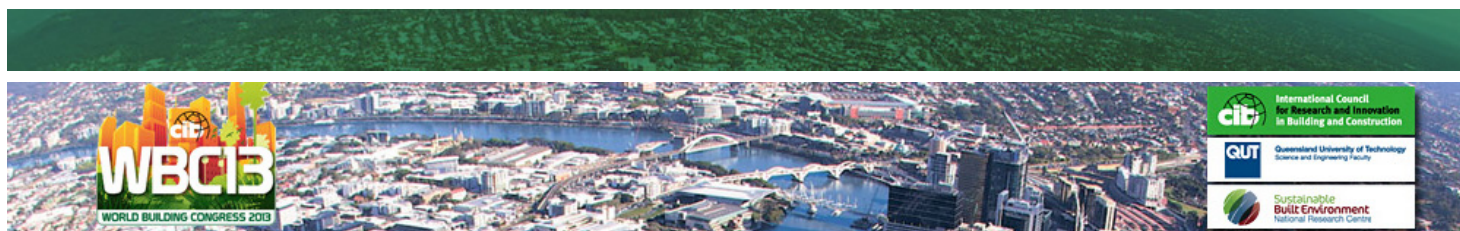
Schlesinger, L. (2012) "Low rental vacancy rate 'insulating' Sydney residential property market against economic woes: CBRE", *Property Observer*. (available online <http://www.propertyobserver.com.au/residential> [accessed on 10/10/12]).

Shelter New South Wales (2012) *NSW housing factsheet – a quick guide to housing facts and figures*. (available online [www.sheltersnsw.org.au](http://www.sheltersnsw.org.au) [accessed on 10/10/12]).

SQM Research (2012) *Residential vacancy rate*, (available online [http://www.sqmresearch.com.au/graph\\_vacancy.php?region=qld%3A%3AGold+Coast+Main&t=1](http://www.sqmresearch.com.au/graph_vacancy.php?region=qld%3A%3AGold+Coast+Main&t=1) [accessed on 10/10/12]).

Suburb View (2012) *Parramatta Property Report Graphs*, Australian Real Estate Search Engine. (available online: <http://www.suburbview.com/view/nsw/parramatta/2150/rent/report/rent+yields+9+months> [accessed on 15/10/12]).

Thornley, B., Wood, D. Grace, K. and Sullivant, S. (2011) "Impact Investing: A framework for Policy Design and Analysis, Case Study 16: National Rental Affordability Scheme", *InSight at Pacific Community Ventures & The Initiative for Responsible Investment at Harvard University Supported by The Rockefeller Foundation*.



[Welcome](#) | [Editor's Preface](#) | [Committees](#) | [Sponsors](#) | [Keynote Speakers](#) | [Panel Speakers](#) | [Program](#) | [Search Proceedings](#) | [Publication Details](#)

## Welcome from the Chair



Responding to extremes and creating resilience is a major global concern, whether in relation to financial crises, weather disasters, or other high impact events. Construction is the foundation of modern society and provides the transport networks we travel on, the facilities for health and education of families, shelter for communities and the foundation of our economy. This infrastructure is impacted by extreme events.

Innovation around the built environment is essential for responding to these challenges, as well as driving economic growth, and enhancing social outcomes. Therefore how we structure and manage our research and development system in construction, especially for built asset resilience, is of critical import.

For researchers, this compels us to focus on how people interact with the built environment because this interaction fundamentally impacts on quality of life and economic growth. In a global context of challenged financial environments we need to carefully consider the ways in which we invest in construction research, remembering the importance of the user experience.

The CIB World Building Congress provides a unique opportunity for attendees across all built environment areas to witness and participate in the globally-leading activities and outcomes that will impact on our industry and society in the future. It is the central gathering of global research in building and construction, and the only event which collectively brings together all CIB working commissions and task groups.

I've been Involved in the CIB for nine years and it's clear to me that the opportunities to grow ideas and professional networks through the CIB World Building Congress are unequalled across the building and construction research fields.

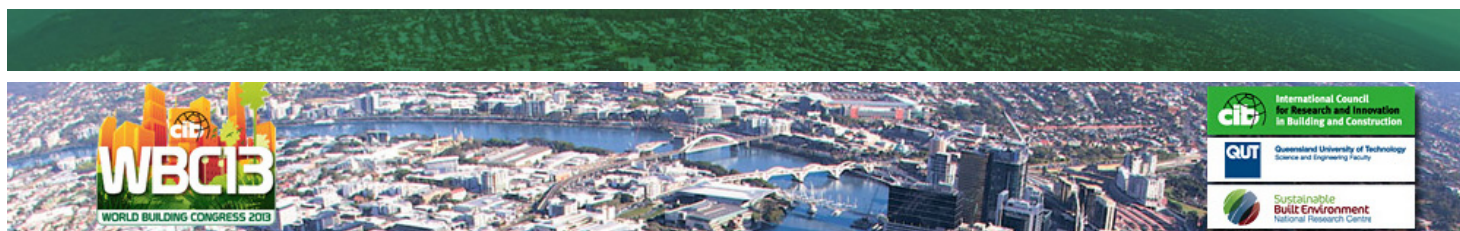
On its 60th anniversary, the CIB brought together its R&D at the Brisbane Convention and Exhibition Centre in Brisbane, Australia – which was created by the construction industry and is a testament to the value of pursuing community goals through the built environment. I want to thank Queensland University of Technology (QUT) for hosting the CIB World Congress in conjunction with the Sustainable Built Environment National Research Centre (SBEncr).

John V McCarthy AO  
President  
CIB

### Congress Organisers

PO Box 170 Hawthorn VIC 3122 Australia  
Phone 1300 792 466 fax +61 3 9818 7111

Proceedings of the 19th CIB World Building Congress, May 2013  
©Queensland University of Technology, May 2013



[Welcome](#) | 
 [Editor's Preface](#) | 
 [Committees](#) | 
 [Sponsors](#) | 
 [Keynote Speakers](#) | 
 [Panel Speakers](#) | 
 [Program](#) | 
 [Search Proceedings](#) | 
 [Publication Details](#)

## Preface from the Editors

The 19th Triennial CIB World Building Congress, 5th – 9th May, 2013 was organised by the International Council for Research and Innovation in Building and Construction (CIB), and hosted by the Queensland University of Technology (QUT) in conjunction with the Sustainable Built Environment National Research Centre (SBENRC).

The theme of this year's Congress was 'Construction and Society', and it showcased some of the world's best research and development in the built environment and construction sectors, focusing in particular on how research helps to optimise the contribution of constructed assets to social objectives. The Congress captured research from a global network of over 5000 CIB members and more than 50 CIB Working Commissions and Task Groups. In celebration of the CIB's 60th anniversary, this Congress underscored the CIB's continuing role as a world leader in innovative building and construction research.

A broad range of papers was presented in oral and poster format, with representation from both academics and practitioners across a range of sub-themes. Submitted papers were subject to blind peer review by members of the International Technical Committee, which was comprehensively represented by academics from the CIB Working Commissions and Task Groups. 396 papers were accepted during this process. The papers presented at the Congress are published in full in these Proceedings of the Congress. The full papers have been subject to a blind academic review process by international experts, except for those denoted as 'Industry Papers', which were subject to editorial review.

We would like to take this opportunity to thank our sponsor organisations for their invaluable contribution to the Congress. We would also like to acknowledge the role of the International Scientific Committee in providing oversight for the review of papers, and the International Technical Committee for undertaking the reviews. The wonderful efforts of the Organising Committee, the Event Organiser and QUT helpers were also much appreciated in preparing and facilitating this event. Finally, we would like to thank all paper authors and delegates for your participation in the Congress. This has been a fantastic opportunity to collaborate with the global community of researchers and practitioners in building and construction, and has helped shape the future of construction in society.



**Professor Stephen Kajewski**  
Head of School, Civil Engineering & Built Environment  
**Science and Engineering Faculty**  
**Queensland University of Technology**



**Associate Professor Karen Manley**  
HDR Director  
School of Civil Engineering & Built Environment  
**Science and Engineering Faculty**  
**Queensland University of Technology**



**Professor Keith Hampson**  
Chief Executive Officer, SBENrc  
**Curtin University**

**Congress Organisers**  
PO Box 170 Hawthorn VIC 3122 Australia  
Phone 1300 792 466 fax +61 3 9818 7111

Proceedings of the 19th CIB World Building Congress, May 2013  
©Queensland University of Technology, May 2013



[Welcome](#) | [Editor's Preface](#) | [Committees](#) | [Sponsors](#) | [Keynote Speakers](#) | [Panel Speakers](#) | [Program](#) | [Search Proceedings](#) | [Publication Details](#)

## Search Proceedings

Find  Keyword:

[List all Entries by Title](#)  
[List all Entries by Presenter](#)  
[List all Industry Papers](#)

Title: **Success or Failure: The NRAS**  
Author/s: **Janet Ge and Connie Susilawati**



Presenter: Janet Ge  
Category:  
Track: W055  
Number: 56  
Filename: [cibwbc2013\\_submission\\_56.pdf](#)

[Back to top](#)

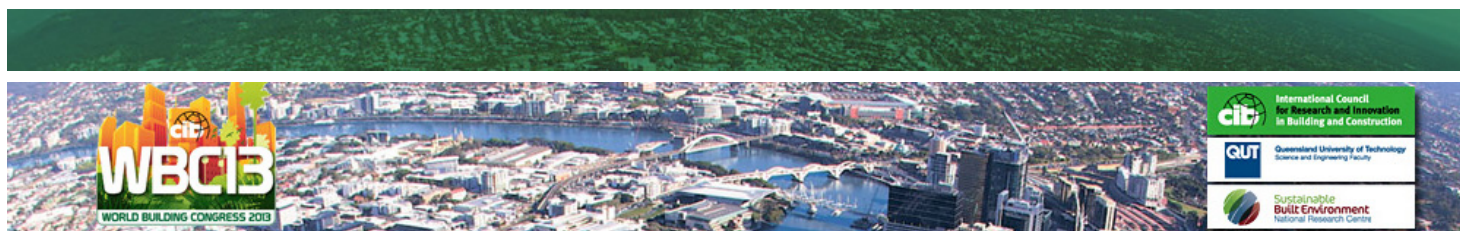
Showing record 1 - 1  
Total Matches 1

[Powered by Tactical Designs](#)

**Congress Organisers**  
PO Box 170 Hawthorn VIC 3122 Australia  
Phone 1300 792 466 fax +61 3 9818 7111

Proceedings of the 19th CIB World Building Congress, May 2013  
©Queensland University of Technology, May 2013





[Welcome](#) | [Editor's Preface](#) | [Committees](#) | [Sponsors](#) | [Keynote Speakers](#) | [Panel Speakers](#) | [Program](#) | [Search Proceedings](#) | [Publication Details](#)

## Publication Details

*Proceedings of the 19th CIB World Building Congress, Brisbane 2013: Construction and Society*

ISBN: 978-0-9875542-1-5

©2013 Queensland University of Technology

Edited by Prof. Stephen Kajewski, A/Prof. Karen Manley and Prof. Keith Hampson

Authors and/or their employers retain copyright of the papers printed in these Proceedings.

For enquiries regarding copyright permissions, please contact:

The School of Civil Engineering and Built Environment  
Queensland University of Technology  
2 George Street, Brisbane, QLD, 4001, Australia  
Phone: +61 3138 1762  
Email: [k.manley@qut.edu.au](mailto:k.manley@qut.edu.au)

Digital copies of these Proceedings will be provided free of charge to Congress delegates by way of USB Flash Drive. The Proceedings will also be available online at the Congress website (<http://worldbuildingcongress2013.com>), the QUT website (<http://www.qut.edu.au>) and the SBENRC website (<http://www.sbenrc.com.au/>) for a minimum period of 12 months following the Congress. This online resource will be accessible free of charge to Congress delegates from the commencement of the Congress, and will be accessible free of charge to non-delegates 3 months after the Congress concludes.

Suggested format for referencing papers in these Proceedings (QUT APA format):

Bloggs, J.O. (2013). Title of paper. In S. Kajewski, K. Manley & K.Hampson (Eds.), *Proceedings of the 19th International CIB World Building Congress*, (pp. ##-##). Brisbane: Queensland University of Technology.

### Congress Organisers

PO Box 170 Hawthorn VIC 3122 Australia  
Phone 1300 792 466 fax +61 3 9818 7111

Proceedings of the 19th CIB World Building Congress, May 2013  
©Queensland University of Technology, May 2013



**Subject:** CIB WBC 2013 notification for paper 56  
**From:** CIB WBC 2013 <cibwbc2013@easychair.org>  
**Date:** 21/12/2012 12:36 PM  
**To:** Janet Ge <XinJanet.Ge@uts.edu.au>

Dear Author

We are pleased to advise the outcome of the review of your paper.

Please take note of the reviewers comments and resubmit your paper with all author details included via EasyChair by Friday 11 January, 2013.

To ensure that your full paper is appropriate for publication, please ensure that it conforms to the formatting guidelines as per the template below:

<http://worldbuildingcongress2013.com/call-for-papers/submit-your-paper/>

Further information regarding session scheduling will be communicated in February 2013.

Please note that it is a requirement for all presenters to register before the Congress. Registration is now open and available at

<http://worldbuildingcongress2013.com/>.

Should you have any questions or are unable to participate in the Congress please do not hesitate to contact us at [wbc2013@qut.edu.au](mailto:wbc2013@qut.edu.au).

We wish you a happy festive season and look forward to seeing you at the Congress.

Kind regards

CIB World Building Congress Organisers

----- REVIEW 1 -----

PAPER: 56

TITLE: Success or Failure: The NRAS

AUTHORS: Janet Ge and Connie Susilawati

OVERALL EVALUATION: 2 (Accept with very major revision (please provide information below))

Is this paper appropriate for the nominated track?: 1 (Not Sure)

----- REVIEW -----

The paper does not reveal the theoretical base relied upon by the author(s). It seems like a series of incoherent observations based on case studies of perhaps only local interest.